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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,793	02/20/2004	Stephan Copeland	030685	7183

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Dennis M. Carleton
BUCHANAN INGERSOLL
20th Floor
One Oxford Centre
Pittsburgh, PA 15219

EXAMINER

KING, ANITA M

ART UNIT	PAPER NUMBER
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3632

DATE MAILED: 11/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/783,793

Applicant(s)

COPELAND, STEPHAN 

Examiner

Anita M. King

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-11 and 13 is/are rejected.
- 7) ☒ Claim(s) 6 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/20/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

This is the first office action for application number 10/783,793, Mechanical Arm with Spring Counterbalance, filed on February 20, 2004.

Drawings

The drawings are objected to because reference number "21" in Fig. 2 does not appear to be referring to a pin as cited in paragraph 20, line 4 of the specification; reference number "20" in Fig. 2 does not appear to be referring to a cable; and reference number "22" at the top of Fig. 2 appears to be incorrect. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "19" in Fig. 2. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the hollow sheathing in claims 9 and 13 are not included in the specification.

The disclosure is objected to because of the following informalities: the terms "axel" and "axels" should be changed to --axle-- or --axes-- on page 5, paragraph 19, lines 1, 3, and 5 and on page 7, paragraph 26, line 1.

Appropriate correction is required.

Claim Objections

Claims 2, 3, and 7 are objected to because of the following informalities: in claim 2, lines 2, 3, and 4 "axel" should be changed to --axle--; in claim 3, line 3, "axel" should be changed to --axle--; and in claim 7, line 1, "axel" (both occurrences) should be changed to --axle--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 9 and 13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not describe a hollow sheathing.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 has ambiguous claim terminology where it is unclear whether latter recitations of originally cited terminology are intended to refer to the originally cited

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terms. It is unclear if "an attachment," in line 1 of the claim is intended to refer to the original recitation of the term "an attachment" in line 5 of claim 2. Applicant is suggested to change the original recitation to --a first attachment-- and the latter recitation to --a second attachment-- in an effort to overcome the ambiguity.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 and 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,682,749 to Strater. Strater discloses a mechanical arm (2) comprising: a base (1); a first linkage (5) pivotally attached to the base at a first pivot (8); a second linkage (6) pivotally attached to the first linkage at a second pivot (9); a first spring (25) attached between an anchor point (30) defined on the first linkage and the first pivot; a second spring (25) attached between an anchor point (30) defined on the second linkage and the second pivot; wherein the first and second pivots comprise a first axle (14) and a second axle (14) respectively, a first ring (19) disposed around the first axle and a second ring (19) disposed around the second axle, and wherein the springs are attached to the pivots via an attachment (21, 23, 24) to the rings; a cable (15, 16) disposed around the first ring and the second ring, such that movement of the first linkage about the first pivot causes the second ring to rotate about the second axle such

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as to keep the relative position of the second ring with respect to the horizontal plane constant; wherein the first ring is unable to rotate with respect to a horizontal reference; wherein the springs are attached to the pivot points via a hole (formed by ends 41 & 42) disposed in the rings; wherein the first and second axles are hollow (Fig. 2); wherein the base and one end of the first linkage are rotatably attached to the first axle and further wherein the other end of the first linkage and one end of the second linkage are rotatably attached to the second axle; wherein the first and second linkage are comprised of a hollow sheathing (Col. 5, line 17ff) and further wherein the first and second springs and the first and second rings are hidden from view within the hollow sheathings; and an attachment (3), the attachment being rotatably attached to the other end of the second linkage.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Strater in view of U.S. Patent 5,108,061 to Vlasak or U.S. Patent 4,447,031 to Souder, Jr. et al, hereinafter, Souder, or U.S. Patent 6,550,734 to Spadea. Strater further discloses that the attachment is a support plate. Strater discloses the claimed invention except for the limitation of the attachment being selected from a group consisting of a lamp, a

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computer monitor, a lab instrument, and a microphone. Vlasak teaches a mechanical arm having an attachment (7) attached to a linkage system of the arm, and wherein the lamp can be considered a lab instrument. Souder teaches a mechanical arm attached to a monitor (22). Spadea teaches a mechanical arm attached to a microphone. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the attachment in Strater to have included any one of the attachments as taught by Vlasak, Souder, or Spadea for the purpose of providing a versatile mechanical arm capable of supporting various objects in a particular environment.

Claim 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Strater. Strater discloses the claimed invention except for the limitation of the sheathings being constructed of a material selected from a group consisting of metal and plastic. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have constructed the sheathing in Strater of a sturdy material such as metal or plastic material based on the materials suitability for its intended use and since such a modification would not have produced any unexpected results

Allowable Subject Matter

Claims 6 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 3,820,752 to Oram

U.S. Patent 4,213,591 to Jaakkola

U.S. Patent 4,266,747 to Souder, Jr. et al.

U.S. Patent 5,477,283 to Casey

U.S. Patent 5,538,214 to Sinila

U.S. Patent 6,064,426 to Waterman

U.S. Patent 6,378,829 to Strater et al.


Oram discloses an adjustable articulated support arm for supporting a load. Jaakkola discloses a joint means for light fittings. Souder, Jr. et al. disclose an arm structure which can support relatively heavy objects. Casey discloses an mechanical arm for supporting an image projecting device. Sinila discloses a mechanical arm comprising a cable. Waterman discloses an adjustable arm for supporting an object. Strater et al. disclose an articulated bracket for office equipment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita M. King whose telephone number is (703) 308-2162. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leslie A. Braun can be reached on (703) 308-2156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Anita M. King
Primary Examiner
Art Unit 3632

November 22, 2004